



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2  
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JUL 18 2002

Clifford G. Day  
Supervisor, New Jersey Field Office  
U.S. Fish and Wildlife Service  
927 North Main Street (Bldg. D1)  
Pleasantville, New Jersey 08232

RE: 2002 Revisions to the New Jersey Surface Water Quality Standards

Dear Mr. Day:

I am writing to initiate consultation, pursuant to Section 7 of the Endangered Species Act, with the U.S. Fish and Wildlife Service (USFWS) on the Environmental Protection Agency's (EPA) pending action on the 2002 revisions to the New Jersey Surface Water Quality Standards (NJSWQS). Towards this end, enclosed please find a copy of the 2002 revisions to the NJSWQS, a redline/strikeout version highlighting these revisions, and a summary sheet outlining the most significant changes.

Before beginning the discussion of the 2002 revisions to the NJSWQS, I would like to update you on the status of the terms and conditions that came out of the USFWS's June 26, 1996 Biological Opinion (BO) on the 1994 revisions to the NJSWQS. As you know, through the BO, the USFWS concluded that EPA's action on the 1994 revisions to the NJSWQS is "not likely to jeopardize the continued existence of the bald eagle (*Haliaeetus leucocephalus*), American peregrine falcon (*Falco peregrinus anatum*), and dwarf wedgemussel (*Alasmidonta heterodon*).". However, the BO also concluded that certain of the NJSWQS provisions could result in an unquantifiable incidental take of these species. As a result, the USFWS identified three terms and conditions intended to minimize the incidental take of these species that could result from our action on the 1994 revisions to the NJSWQS, which are as follows:

1. Prohibit mixing zones in areas with documented occurrences of the dwarf wedge mussel.
2. Revise the antidegradation policy to provide that federally-listed species are considered existing uses and will be maintained and protected.
3. Establish PCB, DDT, and mercury criteria at levels that will minimize adverse effects on the bald eagle and the peregrine falcon.

I am pleased to report that the first term and condition has been included in the 2002 revisions to the NJSWQS. Moreover, as required by our Performance Partnership Agreement with the New Jersey Department of Environmental Protection (NJDEP), during the upcoming Fall, the NJDEP will soon be revising New Jersey's antidegradation policy to include a statement to provide that federally-listed species are considered existing uses and will be maintained and protected. At the same time, the NJDEP will also propose adoption of the New Jersey-specific wildlife criteria for PCBs, DDT and mercury that were jointly developed by the NJDEP, the USFWS and EPA to protect federally listed endangered and threatened species, including the bald eagle and peregrine falcon.

Based on our review of the 2002 revisions to the NJSWQS, we have determined that, with the exception of the freshwater acute and chronic criteria for lead, they are either as, or more, protective than the previous NJSWQS. With regard to the lead criteria, EPA's freshwater acute and chronic criteria and conversion factors for lead are hardness dependent, while NJDEP's freshwater acute and chronic criteria, and conversion factors are not (see table below).

**Comparison of EPA's and NJ's Aquatic Life Criteria for Lead**

	<b>Freshwater CMC*</b>	<b>Freshwater CCC*</b>
<b>EPA's criteria (dissolved) ug/L</b>	@50 - 30 @100 - 65 @200 - 136	@100 - 2.5 @200 - 5.3 @300 - 8.1
<b>NJ's criteria (dissolved) ug/L</b>	38	5.4
<b>EPA's conversion factors</b>	@50 - 0.892 @100 - 0.791 @200 - 0.69	@100 - 0.791 @200 - 0.690 @300 - 0.630
<b>NJ's conversion factor</b>	0.723	0.723

\* EPA's FW aquatic life criteria are hardness dependent ( $CMC = e^{1.273 \ln(\text{hardness}) - 3.6867}$  and  $CCC = e^{0.7852 \ln(\text{hardness}) - 2.715}$ ). EPA's FW conversion factors are hardness dependent ( $CMC\ CF = 1.46203 - [\ln(\text{hardness})(0.041838)]$  and  $CCC\ CF = 1.46203 - [\ln(\text{hardness})(0.145712)]$ ).

While EPA does not disagree with NJDEP's development of non-hardness dependent criteria or the revised conversion factors, it is not possible to directly compare EPA's freshwater criteria with NJDEP's freshwater criteria because EPA's criteria are hardness dependent. NJDEP's freshwater criteria may be more or less stringent than EPA's based on the hardness of NJDEP's waters. However, if New Jersey's waters are expected to have a low hardness (i.e., ~50 mg/L as  $CaCO_3$ ), the NJDEP's freshwater acute and chronic criteria may not be as stringent as EPA's criteria.

In order to determine whether the NJDEP's non-hardness dependent freshwater acute and chronic criteria for lead is sufficiently protective of federally-listed aquatic life species, we identified all of the federally-listed aquatic life species in New Jersey; the dwarf wedgemussel was the only species that was potentially effected by the adoption of the aquatic life criteria for lead. Further, to date, the only identified locations where the dwarf wedgemussel may occur are portions of the Pequest River and Paulins Kill. Accordingly, EPA conducted a data retrieval to determine the range of ambient hardness in these waters, as well as the ambient concentrations of lead, in these water bodies. The results of these data retrievals showed that ambient hardness of these waters ranged from 116.0 mg/L to 240.0 mg/L as CaCO<sub>3</sub>, with a mean value of 185.1 mg/L as CaCO<sub>3</sub>. In addition, ambient lead concentrations ranged from 0 - 4 ug/L, compared to EPA's current national recommended chronic water quality criterion of 5.3 ug/L at a hardness of 200 mg/L as CaCO<sub>3</sub>. Consequently, EPA believes that NJDEP's non-hardness dependent freshwater aquatic life criteria for lead will not have an adverse effect on the potential dwarfwedge mussel populations in the Pequest River and Paulins Kill.

It should be noted that EPA is in the process of updating its aquatic life criteria for lead and may revise the Agency's national recommended water quality criteria. EPA conducted a literature review for lead in 1997 and generated a draft document. New acute data considered acceptable for use is available for *C. dubia* (Bitton et al. 1993 and Diamond et al. 1997). New acceptable saltwater acute and chronic data along with a new acute to chronic ratio (ACR) is available for the copepod, *Eurytemora affinis*, (Hall et al 1997, unpublished report). Once EPA publishes its updated national recommended aquatic life water quality criteria for lead, NJDEP will be required to review its water quality criteria to determine if they are still protective of aquatic life based on the most recent science.

In addition, The National Toxic Rule (NTR) (57 FR 60848) freshwater aquatic life water quality criteria for lead remain in effect as the enforceable criteria in New Jersey for Clean Water Act (CWA) programs until EPA officially withdraws New Jersey from the NTR for lead.

Finally, as you know, EPA is presently consulting with the Services CWA section 304(a) aquatic life criteria. If this consultation process identifies the need to modify any of the 2002 revisions to the NJSWQS, EPA will require the NJDEP to revise them accordingly.

Based on the above, EPA has made a preliminary determination that our approval of the 2002 revisions to the NJSWQS is not likely to adversely affect federally-listed species under your jurisdiction. I would greatly appreciate receiving any comments you may have on our preliminary determination and the 2002 revisions to the NJSWQS by August 31, 2002.

In the interim, should you have any questions, or need additional information, please feel free to contact me at (212) 637-3495, or have your staff contact Wayne Jackson at (212) 637-3807.

Sincerely yours,

A handwritten signature in black ink, appearing to read "R. Hargrove". The signature is fluid and cursive, with a large initial "R" and a long, sweeping underline.

Robert W. Hargrove, Chief  
Strategic Planning & Multi-Media Programs Branch

Enclosures

cc: M. Colligan, NMFS

**NJDEP January 2002 Final SWQS**  
(March 2002)

I. Overall: The January 2002 final revisions to the NJSWQS included revisions to 12 of the 17 provisions included in NJDEP's December 18, 2000 proposal to revise the NJSWQS. Five were dropped from the final rule. The revisions to the antidegradation policy will be re-proposed later this year.

Overall, the State's proposal is very good, and addresses many of EPA's previously raised issues.

II. Summary of Revised Provisions:

- N.J.A.C. 7:9B-1.4 - Definitions: NJDEP added or revised 5 definitions.
- N.J.A.C. 7:9B-1.5(a) - Statements of Policy: NJDEP added a provision stating its policy to restore, maintain and preserve all freshwaters as potential sources of potable water supplies. This proposed policy provides that all fresh surface waters should be protected as potential sources of public water supplies to provide adequate, clean potable water for the present and future.
- N.J.A.C. 7:9B-1.5(c)(2) - Design Flows: NJDEP will use the flow that is exceeded 75% of the time for the appropriate "period of reference" rather than the harmonic mean flow for toxic pollutants with a bioaccumulation/bioconcentration factor greater than 200 L/kg and for bromodichloromethane based upon a USGS recommendation.
- N.J.A.C. 7:9B-1.5(c)(6) - Metals Translators: NJDEP will use the conversion factors promulgated by EPA (60 Fed. Reg. 22229; May 4, 1995) as metal translators, unless a site-specific metal translator is developed through a site-specific water quality study or if a metal translator is developed as part of a study through the watershed process or through a TMDL process which undergoes EPA review and approval.
- N.J.A.C. 7:9B-1.5(g) - Nutrient Policies: NJDEP amended the nutrient policies to specify that nutrients will not be permitted in concentrations that cause: (1) abnormal diurnal fluctuations in dissolved oxygen or pH; or (2) changes to the composition of aquatic ecosystems, in addition to the existing conditions that are not allowed in freshwaters except due to natural conditions.
- N.J.A.C. 7:9B-1.5(h) - Regulatory Mixing Zones: NJDEP revised the existing mixing zone policies and their implementation procedures to clarify the scope of the policy and provide specificity to ensure uniform implementation.
- N.J.A.C. 7:9B-1.14(c)5 - Phosphorus Criteria: NJDEP amended the phosphorus criteria to acknowledge that criteria may be developed through the watershed process.
- N.J.A.C. 7:9B-1.14(c)8- Total Dissolved Solids (TDS) Criteria: NJDEP deleted the portion of the current criteria for TDS specifying changes in TDS levels up to 133% shall

- N.J.A.C. 7:9B-1.11(h) - Procedures for reclassifying specific segments for more restrictive uses: NJDEP proposed, but did not adopt, that existing discharges may continue at the same effluent quality on an upgraded stream classification. This policy provides relief to the dischargers who are improving the water quality by better treatment technologies. Dischargers impacting an upgraded stream on the date of the reclassification of that stream would be subject to effluent limits based on existing effluent quality. This provision will not apply to new or expanding facilities.
- N.J.A.C. 7:9B-1.5(d) - Antidegradation Policies: NJDEP proposed, but did not adopt, to replace the existing antidegradation policies at N.J.A.C. 7:9B-1.5(d). The revised antidegradation policies are intended to reflect the transition to the watershed approach. One of the goals for watershed and water quality management is to maintain water quality that meets or is better than the water quality necessary to protect existing and designated uses, including threatened and endangered species. The antidegradation provisions are intended to protect "high quality waters" from changes in water quality. Where water quality does not meet the SWQS, the Department is required to identify the waterbody on the Water Quality Limited Segments List and develop TMDLs pursuant to the current and proposed provisions at N.J.A.C. 7:15.

## CHAPTER 9B SURFACE WATER QUALITY STANDARDS

### SUBCHAPTER 1. SURFACE WATER QUALITY STANDARDS

Additions are shown as **bold** and deletions as ~~strikeouts~~.

#### 7:9B-1.4 Definitions:

**"Bioconcentration" means the net accumulation of a substance by an aquatic organism, as a result of uptake directly from the ambient water, through the gill membrane or other external body surfaces.**

**"Complete mix" means a twenty five percent (25%) or less variation in concentration across the transect of the water body.**

~~"Cumulative substance" means a substance that may be bioaccumulated within an organism to concentrations that exert a toxic effect on that organism or render it unfit for consumption.~~

~~"Long term harmonic mean flow" means the number of daily flow measurements divided by the sum of reciprocals of the flows; in other words, it is the appropriate design flow for health effects occurring after long term exposures and is calculated by~~

$$\frac{n}{n \sum_{i=1}^n (1/Q_i)}$$

~~where n is the number of recorded flows and Q is the combined receiving water and effluent flow.~~  
~~"MA30CD5" means the minimum average 30 consecutive day flow with a statistical recurrence interval of five years.~~

**"MA30CD10" means the minimum average 30 consecutive day flow with a statistical recurrence interval of ten years.**

~~"Mixing zones" means localized areas of surface waters, as may be designated by the Department, into which wastewater effluents may be discharged for the purpose of mixing, dispersing, or dissipating such effluents without creating nuisances or hazardous conditions, or violating the provisions of this subchapter.~~

**"Outstanding National Resource Waters" or "ONRW" means high quality waters that constitute an outstanding national resource (for example, waters of National/State Parks and Wildlife Refuges and waters of exceptional recreational or ecological significance) as designated in N.J.A.C. 7:9B-1.15(i). Waters classified as FW1 waters and Pinelands waters are Outstanding National Resource Waters.**

**"Regulatory mixing zones" means areas of surface waters established pursuant to this chapter for the purpose of initial mixing, dispersion, or dissipation of wastewater effluent at or near the discharge point. Regulatory mixing zones may be established for acute, chronic, or human health criteria.**

- i. Toxic substances having carcinogenic effect-based human health criteria and with a bioaccumulation or bioconcentration factor greater than 200 L/kg are as follows:

(1) Aldrin; (2) Chlordane; (3) 4,4'-DDD (p,p'-TDE); (4) 4,4'-DDE; (5) 4,4'-DDT; (6) 3,3'-Dichlorobenzidene; (7) Dieldrin; (8) Heptachlor; (9) Heptachlor epoxide; (10) Hexachlorobenzene; (11) Polychlorinated biphenyls (PCBs); (12) 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD); and (13) Toxaphene.

3. (No Change.)

4. ~~Mixing zones policies are as follows:~~

- i. ~~Water quality within a mixing zone may be allowed to fall below applicable water quality criteria provided the existing and designated uses outside the mixing zone are not adversely impacted.~~
- ii. ~~Mixing zone requirements will be determined by the Department on a case-by-case basis taking into special consideration the extent and nature of the receiving waters so as to meet the intent and purpose of the criteria and standards.~~
- iii. ~~The total area and volume of a waterway or waterbody assigned to mixing zones shall be limited to that which will not interfere with biological communities or populations of important species to a degree which is damaging to the ecosystem or which diminishes other beneficial uses disproportionately. Furthermore, significant acute mortality of aquatic biota shall not occur within the mixing zone.~~
- iv. ~~Zones of passage shall be provided for the passage of free-swimming and drifting organisms wherever mixing zones are allowed.~~
- v. ~~Temperature changes in designated heat dissipation areas shall not cause mortality of the aquatic biota nor create conditions which allow the introduction or maintenance of populations of undesirable organisms at nuisance levels.~~
- vi. ~~Where waste discharges would result in heat dissipation areas in such close proximity to each other as to impair protected uses, additional limitations shall be prescribed to avoid such impairment.~~
- vii. ~~No heat dissipation areas shall be permitted in waters classified as FW2-TP or within 1,500 feet of the shoreline in SC waters.~~



(e) Water quality-based effluent limitation policies are as follows:

1. - 6. (No Change.)

(f) (No change.)

(g) Nutrient policies are as follows:

1. (No Change.)

2. Except as due to natural conditions, nutrients shall not be allowed in concentrations that cause objectionable algal densities, nuisance aquatic vegetation, **abnormal diurnal fluctuations in dissolved oxygen or pH, changes to the composition of aquatic ecosystems**, or otherwise render the waters unsuitable for the designated uses.

3. The Department may establish **watershed or site-specific** water quality criteria for nutrients in lakes, ponds, reservoirs or streams, in addition to or in place of the criteria in N.J.A.C. 7:9B-1.14, when necessary to protect existing or designated uses. Such criteria shall become part of these Water Quality Standards.

4. - 6. (No Change.)

(h) **A permittee may request that a regulatory mixing zone be established by the Department for acute, chronic, and human health criteria. Regulatory mixing zones may be evaluated as part of the development of water quality-based effluent limitation(s) to provide for the initial dispersion of the effluent in the receiving water body at or near the discharge point.**

1. **The following are the general conditions for establishing regulatory mixing zones:**

a. **Regulatory mixing zones shall be established in accordance with this section;**

b. **Water quality criteria may be exceeded within the regulatory mixing zone; however, surface water quality criteria must be met at the edge of the regulatory mixing zone;**

c. **The regulatory mixing zone shall be no larger than that portion of the receiving water where complete mixing occurs;**

d. **Regulatory mixing zones shall not be used for, or considered as a substitute for, minimum treatment technology required by the Federal and State Acts or other applicable Federal or State laws or regulations;**

e. **Regulatory mixing zones shall be established to assure that significant**

- (1) Regulatory mixing zones for chronic and human health criteria are limited to one fourth of the distance between the discharge port closest to the shoreline and the shoreline during average tidal conditions, or 100 meters, whichever is greater; and
- (2) Regulatory mixing zones for acute criteria are limited by the distances calculated in accordance with the USEPA "Technical Support Document For Water Quality-Based Toxics Control" USEPA, EPA/505/2-90-001, March 1991. In no case shall a regulatory mixing zone for acute criteria extend more than 100 meters from the discharge point or include more than five percent (5%) of the total surface area of a water body based on critical ambient tidal conditions during low slack, astronomical spring tide for the applicable exposure period.

iii. For discharges to non-tidal water bodies:

- (1) Regulatory mixing zones for chronic and human health criteria shall be based on the design flows at N.J.A.C. 7:9B-1.5(c)2. If rapid, complete mix is demonstrated, the entire available design flow may be used in dilution calculations. If rapid, complete mix is not demonstrated, only that portion of the design flow that can be demonstrated to mix with the effluent within 100 meters from the discharge point may be used in dilution calculations; and
- (2) Regulatory mixing zones for acute criteria shall be based on the MA1CD10 design flow. If rapid, complete mix is demonstrated, the entire available design flow may be used in dilution calculations. If rapid, complete mix is not demonstrated, only that portion of the design flow that can be demonstrated to mix with the effluent within a downstream distance calculated in accordance with the USEPA "Technical Support Document For Water Quality-Based Toxics Control" USEPA, EPA/505/2-90-001, March 1991 may be used. In no case shall a regulatory mixing zone for acute criteria extend more than 100 meters from the discharge point or include more than five percent (5%) of the total surface area of a water body based on the design flow.

iv. Site-specific spatial dimensions of the regulatory mixing zone for an approved multiport diffuser shall be determined by the Department. The dimensions of the site-specific regulatory mixing zone and the allowable dilution at the edge of the regulatory mixing zone may be established using appropriate diffuser models (for example, CORMIX, PLUMES), tracer studies, or other field studies approved by the Department in accordance with (h)3.

- iii. For new or increased discharges to lakes, ponds, and reservoirs;
- iv. For discharges to areas of waters with documented occurrences of any threatened or endangered species listed pursuant to the Federal or State Threatened and Endangered Species Acts (Endangered Species Act of 1973, 16 U.S.C. 1531 et seq.; New Jersey Endangered and Non Game Species Conservation Act of 1973, N.J.S.A. 23:2A-1 et seq.; Endangered Plant Species List Act, N.J.S.A. 13:1B-15.151 et seq.), if those discharges would likely have an adverse effect on the species or its associated habitat;
- v. For heat dissipation areas in FW2-TP waters;
- vi. For heat dissipation areas within 1500 feet of the shoreline in SC waters;
- vii. For new discharges of the following pollutants:
  - (1) alpha-BHC (alpha-HCH), (2) beta-BHC (beta-HCH), (3) gamma-BHC (gamma HCH / Lindane), (4) Chlordane, (5) 4,4'-DDD (p,p'-TDE), (6) 4,4'-DDE, (7) 4,4'-DDT, (8) Dieldrin, (9) Hexachlorobenzene, (10) Hexachlorobutadiene, (11) Mercury, (12) Mirex, (13) Pentachlorobenzene, (14) Polychlorinated biphenyls (PCBs), (15) 1,2,4,5-Tetrachlorobenzene, (16) 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), and (viii) Toxaphene; and
- xvii. For new or expanded discharges, within 1500 feet upstream of a surface water intake (including any reservoir) and 500 feet downstream or to the farthest point of backwatering due to the intake, whichever is more protective.

#### 7:9B-1.6 Establishment of water quality-based effluent limitations

- (a) For Category One waters, as defined in N.J.A.C. 7:9B-1.4, ~~draft~~ water quality-based effluent limitations shall be assigned to a point source discharge so as to protect the existing water quality from any measurable or calculable changes. The Department shall establish ~~draft~~ water quality-based effluent limitations, as appropriate, for those parameters contained in N.J.A.C. 7:9B-1.14, as well as any other parameters the Department believes may have a detrimental effect on the designated or existing uses.

(b) - (c) (No Change.)

#### 7:9B-1.7 - 7:9B-1.13 (No Change.)

#### 7:9B-1.14 Surface water quality criteria

(a) - (b) (No Change.)

7:9B-1.14(c) Surface Water Quality Criteria for FW2, SE and SC Waters

(Expressed as maximum concentrations unless otherwise noted)

Substance	Classifications	Criteria	
8. Solids, Total Dissolved (mg/L) (Filterable Residue)		i. No increase in background which may adversely affect the survival, growth or propagation of the aquatic biota. <del>(Increases up to 133 percent of background are deemed to be in compliance with the narrative criterion above. Increases above 133 percent of background may be granted where the discharger demonstrates, to the satisfaction of the Department, that the proposed increase will not adversely affect the aquatic biota.)</del> <b>Compliance with water quality-based WET limitations or LC<sub>50</sub> <sup>3</sup> 50%, whichever is more stringent, shall be deemed to meet this requirement.</b>	FW2
		ii. – iii. No change.	FW2
9. – 12.	(No Change.)		

7:9B-1.14(c) Surface Water Quality Criteria for FW2, SE and SC Waters

(Expressed as maximum concentrations unless otherwise noted)

Substance	Classifications	Criteria	
vi.	Ammonia, un-ionized	(1) <del>20(c)</del>	FW2-TP;
		(2) <del>50(c)</del>	FW2-TM
	(24-hour average) (mg NH <sub>3</sub> -N/L)	(3) <del>0.1 of acute definitive LC<sub>50</sub> or EC<sub>50</sub>(c)</del>	FW2-NT
		(1) at pH < 8.30	All SE, SC
		$0.179 \times 10^{0.026(\text{Temp}-20) + 0.41(\text{pH}-7.80)} (a)$	FW2-TP,
		$0.046 \times 10^{0.026(\text{Temp}-20) + 0.41(\text{pH}-7.80)} (c)$	FW2-TM

7:9B-1.14(c) Surface Water Quality Criteria for FW2, SE and SC Waters

(Expressed as maximum concentrations unless otherwise noted)

Substance	Classifications	Criteria	
		(3) at pH < 8.30	PL
		$0.238 \times 10^{0.026(\text{Temp}-20) + 0.41 (\text{pH}-7.80)} \text{(a)}$	
		$0.061 \times 10^{0.026(\text{Temp}-20) + 0.41 (\text{pH}-7.80)} \text{(c)}$	
		at pH <sup>3</sup> 8.30	
		$0.238 \times 10^{0.026(\text{Temp}-20) + 0.20} \text{(a)}$	
		$0.061 \times 10^{0.026(\text{Temp}-20) + 0.20} \text{(c)}$	
		(4) 0.115(a)	
		0.030(c)	SE
		(5) 0.094(a)	
		0.024(c)	SC
vii.	lxxxi. (No Change.)		
	lxxxii. Lead (Total recoverable)	(1) 5(h) (Total recoverable); 38(a); 5.4(c) (Dissolved)	All FW2
		(2) 210(a); 24(c) (Dissolved)	All SE, SC

1 Summer spawning period from March 1<sup>st</sup> through October 31<sup>st</sup>.

2 Winter non-spawning period from November 1<sup>st</sup> through February 28/29<sup>th</sup>.

lxxxiii. – civ. (No Change.)

7:9B-1.15 Surface water classifications for the waters of the State of New Jersey

(a) - (b) (No Change.)

(c) The surface water classifications in Table 1 are for waters of the Atlantic Coastal Basin:

TABLE 1

Waterbody	Classification
<b>EDWARD CREEK</b>	
( <del>Sea Isle City</del> ) <b>Ocean City - Source to the boundary of Marmora Wildlife Management Area</b>	SE1
( <del>Sea Isle City</del> ) <b>Ocean City - Boundary of Marmora Wildlife Management Area to Horn Creek</b>	SE1(C1)

(d) The surface water classifications in Table 2 are for waters of the Delaware River Basin:

TABLE 2

Waterbody	Classification
<del>COOPERMINE</del> <b>COPPERMINE BROOK (Pahaquarry) – Entire length</b>	FW1
<b>DELAWANNA CREEK</b>	
(Delaware) – <del>Entire length</del> <b>Source downstream to Delaware Lake, excluding the Lake</b>	FW2-TM
(Delaware) – <b>Delaware Lake dam downstream to Delaware River, including tributaries</b>	FW2-TP(C1)
<b>FLAT BROOK</b>	
(Flatbrook-Roy) - Confluence of Big Flat Brook and Little Flat Brook to the boundary of Flatbrook-Roy Wildlife Management Area, except segments described below	FW2-TP(C1)
(Flatbrook-Roy) - <b>Brook within the boundaries of Flatbrook-Roy Wildlife Management Area</b>	FW2-TM(C1)
(Flatbrookville) - Flatbrook-Roy Wildlife Management Area boundary to Delaware River, except segments described below	FW2-TM

(S. of Point Mtn.)	FW2-TP(C1)
(S. of Schooley's Mtn. Brook) - Entire length	FW2-TP(C1)
(Waterloo) - Tributary west of Kurtenbach's Brook from source downstream to Waterloo Valley Road bridge	FW2-TP(C1)
MUSKEE CREEK - PENNSAUKEN CREEK	(No Change.)
PEQUEST RIVER	
(Belvidere) (Tranquility) - Source to Tranquility bridge except segments described below	FW2-TM
(Whittingham) - Northwestern tributaries, including Big Spring, located within the boundaries of the Whittingham Wildlife Management Area, southwest of Springdale, from their origins to their confluence with the Pequest River	FW1(tm)
(Whittingham) - Stream and tributaries within the Whittingham Wildlife Management Area, except those classified as FW1, above	FW2-TM(C1)
(Vienna) - Tranquility bridge to Townsbury bridge	FW2-NT
(Townsbury) - Townsbury bridge to Delaware River, except segment described below	FW2-TM
(Pequest) - Segment and tributaries within the boundaries of the Pequest Wildlife Management Area	FW2-NT(C1) FW2-TM(C1)
TRIBUTARIES	
(No Change.)	
PIERSONS DITCH - RUNDLE BROOK	(No Change.)
SALEM CREEK (RIVER) RIVER (Salem) - Entire length	FW2-NT/SE1
SAMBO ISLAND BROOK - SCHOOLEYS MTN. BROOK	(No Change.)
SHABACUNK (SHABBECONG) SHABAKUNK CREEK (Ewing) - Entire length	FW2-NT
SHABBECONG CREEK (Washington) - Entire length	FW2-TM
SHAWANNI CREEK - SPARTA JUNCTION BROOK	(No Change.)
SPRING MILLS BROOK (Milford) - Entire length	FW2-TP(C1)
(Spring Mills) - Source to Rt. 519 bridge	FW2-TP(C1)
(Milford) - Rt. 519 bridge to confluence with Hakiwokake Creek	FW2-TM
STEELE RUN - WAPALANNE LAKE	(No Change.)
WARFORD CREEK (Barbertown) - Entire length	FW2-TP(C1)
WELDON BROOK - YARDS CREEK	(No Change.)

(e) The surface water classifications in Table 3 are for waters of the Passaic, Hackensack and New York Harbor Complex Basin:

TABLE 3

Waterbody	Classification
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Oak Ridge Reservoir

RUSSIA BROOK

(Sparta) - Source to Lake Hartung dam FW2-NT

(Milton) - Lake Hartung dam to, but not including, FW2-TM

Lake Swannanoa

**TRIBUTARIES**

(S. of Mt. Paul) – Entire length FW2-TP(C1)

SADDLE RIVER – WOODBRIDGE CREEK (No Change.)

(f) The surface water classifications in Table 4 are for waters of the  
Raritan River and Raritan Bay Basin:

TABLE 4

Waterbody	Classification
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ALLERTON CREEK - BEDEN BROOK	(No Change.)
BIG BEAR BROOK (West Windsor) - Entire length	FW2-NT

BIG BROOK - BURNETT BROOK	(No Change.)
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**BUSHKILL BROOK**

(Flemington) – Source and tributary downstream to	FW2-TM
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**Rt. 31 Bridge**

(Flemington) – Rt. 31 bridge downstream to South	FW2-NT
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**Branch Raritan River**

CAPOOLONG (CAKEPOULIN) CREEK – SUN VALLEY BROOK	(No Change.)
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**SWIMMING RIVER**

<del>(Red Bank) - Source to the intake of the Monmouth</del>	<del>FW2-NT</del>
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